

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 05 DEC 2005

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Applicant's or agent's file reference 21007111	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IB2003/005315	International filing date (day/month/year) 21.11.2003	Priority date (day/month/year) 21.11.2003
International Patent Classification (IPC) or both national classification and IPC H04M1/02		
Applicant NOKIA CORPORATION et al.		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
 - ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 28.05.2005	Date of completion of this report 01.12.2005
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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/IB2003/005315**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-15 as originally filed

Claims, Numbers

1-15 filed with telefax on 22.11.2005

Drawings, Sheets

1/8-8/8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-15
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-15
Industrial applicability (IA)	Yes: Claims	1-15
	No: Claims	

2. Citations and explanations

see separate sheet

Indications relating to item V (novelty, inventive step and industrial applicability)

The following document (D) is mentioned in this report:

D1: Patent Abstracts of Japan, vol. 2003, no. 12, 5 December 2003 & JP 2003 258955 (Toshiba Corp), 12 September 2003

The Patent Abstract document, despite its publication date being after the filing date of the present application, corresponds to the document JP 2003 258955, published before the filing date of the present application, and it is assumed that the disclosure of these two documents is equivalent in terms of subject matter defined. Therefore in the following paragraphs reference will be made to the Patent Abstract, which is in one of the official languages of the European Patent Office, although the valid prior art document is given by JP 2003 258955.

2. Document D1 discloses, according to features of claim 1, a communication apparatus (100) having
a first housing member (1),
a second housing member (2) pivotally coupled to said first housing member (see figure),
a controller operable in a plurality of operation states ("to control the operation state of a terminal by using three values....."), and
a detector (31) associated with said first and second housing members, and connected to said controller,
said detector being adapted to detect an angle position related to said first and second housing members and supply an angle position detection signal to said controller ("detects the folding angle between the part (1) and the part (2)"), and
said controller being adapted to enter a first operating state when said angle position detection signal represents an angle position within a first interval, a second operating state when said angle position detection signal represents an angle position within a second interval, and a third operating state when said angle position detection signal represents an angle position within a third interval (see ABSTRACT: "Problem to be solved").

The subject-matter of claim 1 differs from the disclosure of D1 in that said controller is further adapted to control reception of an incoming call by rejecting said incoming call upon a transition from said second state to said first state, or accepting said incoming call upon a transition from said second state to said third state.

The objective technical problem to be solved by the invention may therefore be regarded how to provide a more user-friendly communication apparatus.

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EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IB2003/005315

In respect of the above-mentioned differences and corresponding technical problem, it is submitted that the fact of controlling the reception of an incoming call by rejecting said incoming call upon a transition from said second state to said first state (i.e. by closing the communication apparatus), or accepting said incoming call upon a transition from said second state to said third state (by opening or folding the communication apparatus) is considered, in the light of D1 which teaches the fact of controlling the operation state of the communication apparatus when the apparatus is folded and closed, a common design measure within the range of options envisaged by a person skilled in the art.

The subject-matter of claim 1 does not therefore involve an inventive step (Article 33 (3) PCT).

3. The additional features of dependent claims 2 to 6 are either known from D1 or are considered to be common design measures within the normal range of options envisaged by a person skilled in this art.

Therefore, said features do not, either alone or in combination, add any inventive activity to claim 1.

4. Independent claim 7 corresponds for the category "method" to the apparatus claimed in claim 1, therefore the same objections as for claim 1 arise.

The subject-matter of independent claim 7 does not therefore involve an inventive step (Article 33 (3) PCT).

5. The additional features of dependent claims 8 to 15 are either known from D1 or are considered to be common design measures within the normal range of options envisaged by a person skilled in this art.

Therefore, said features do not, either alone or in combination, add any inventive activity to claim 7.

CLAIMS

1. A communication apparatus having
a first housing member,
5 a second housing member pivotally coupled to said
first housing member,
a controller operable in a plurality of operation
states, and
a detector associated with said first and second
10 housing members, and connected to said controller,
said detector being adapted to detect an angle
position related to said first and second housing members
and supply an angle position detection signal to said
controller, and
15 said controller being adapted to enter a first
operating state when said angle position detection signal
represents an angle position within a first interval, a
second operating state when said angle position detection
signal represents an angle position within a second
20 interval, and a third operating state when said angle
position detection signal represents an angle position
within a third interval, wherein said controller is
further adapted to control reception of an incoming call
by rejecting said incoming call upon a transition from
25 said second state to said first state, or accepting said
incoming call upon a transition from said second state to
said third state.

2. The communication apparatus of claim 1, wherein
the detector comprises a means provided with one or more
30 cams and one or more electromechanical switches, said
cams being adapted to actuate said one or more
electromechanical switches to generate said angle
position detection signal directly representing said
angle position interval.

35 3. The communication apparatus of claim 1 or 2,
wherein said controller is adapted to accept said
incoming call upon said transition from said second state

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to said third state after a transition from said first state to said second state, wherein said controller is adapted to provide caller information when in said second state.

5 4. The communication apparatus according to any of the preceding claims, wherein said first state is a state in which said first and second housing members are essentially folded up.

10 5. The communication apparatus according to any of the preceding claims, wherein said detector comprises a hall sensor.

6. The communication apparatus according to any of claims 1 to 5, wherein said detector comprises an electromechanical switch.

15 7. A method for operating a communication apparatus having a first housing member and a second housing member pivotally coupled to said first housing member, said method comprising

20 detecting an angle position related to said first and second housing members;

entering a first, second and third state of said communication apparatus related to a first, second, and third interval of said angle position respectively;

25 receiving a phone call, comprising the sub-steps of unfolding said communication apparatus from said first state to said second state;

displaying caller information; and

30 rejecting said phone call by folding said communication apparatus to said first state; or accepting said phone call by further unfolding said communication apparatus to said third state.

8. The method of claim 7, wherein said detection comprises

35 actuating a electromechanical switch by a cam; and generating an angle position signal by said electromechanical switch.

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9. The method according to claim 7 or 8, comprising accepting an incoming call upon said transition from said second state to said third state after a transition from said first state to said second state.

5 10. The method according to any of claims 7-9, comprising activating a display upon transition from said first state to said second state.

10 11. The method according to any of claims 7-10, comprising scanning of a touch screen when said communication apparatus is in said third state.

12. The method according to any of claims 7-11, comprising activating presentation of information of a new message on a display upon transition from said first state to said second state.

15 13. The method of claim 12, comprising activating presentation of the message upon transition from said second state to said third state.

20 14. The method according to any of claims 7-12, comprising activating presentation of information of an incoming call on a display upon transition from said first state to said second state.

15. The method according to any of claims 7-14, comprising deactivating a display upon transition from said second state to said first state.

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